

CHECKLIST ENVIRONMENTAL ASSESSMENT

Proposed Action: Approve Drilling Permit (Form 22)

Project/Well Name: Wolfe 22-33 #1

Operator: Wavetech Helium, Inc.

Location: C NW Section 33 T33N R1W

County: Toole MT; **Field (or Wildcat):** Old Shelby

Proposed Project Date: 7/2023

I. DESCRIPTION OF ACTION

Wavetech Helium, Inc. plans to drill a well for a Flathead Formation test 4,500' TD/TVD.

II. PROJECT DEVELOPMENT

1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS, OR INDIVIDUALS CONTACTED

Montana Bureau of Mines and Geology, GWIC website (Toole County Wells).

US Fish and Wildlife, Region 6 website

ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES MONTANA COUNTIES, Toole County

Montana Natural Heritage Program Website (FWP)

Heritage State Rank= S1, S2, S3, T33N R1W

Montana Cadastral Website

Surface Ownership and surface use Section 33 T33N R1W

Montana Department of Natural Resources MEPA Submittal

2. ALTERNATIVES CONSIDERED

No Action Alternative: The proposed well would not be drilled.

Action Alternative: Wavetech Helium, Inc. would have permission to drill the well.

III. IMPACTS ON THE PHYSICAL ENVIRONMENT

3. AIR QUALITY

Long drilling time: No, 2-5 days drilling time.

Unusually deep drilling (high horsepower rig): No, drilling rig for a 4,500' TD/TVD well. The objective formation is the Flathead Formation.

Possible H₂S gas production: Yes, possible H₂S gas from the Mississippian formations and Nisku.

In/near Class I air quality area: No.

Air quality permit for flaring/venting (if productive): Yes, DEQ air quality permit required under 75-2-211. AQB review.

Comments: No special concerns – using rig to drill to 4,500' TD/TVD. If there are no gas gathering systems nearby, associated gas can be flared under Board Rule 36.22.1220.

4. WATER QUALITY

Salt/oil based mud: Use freshwater and freshwater mud system for drilling this well.

High water table: No high-water table anticipated at this location.

Surface drainage leads to live water: No, a reservoir is located about ¼ of a mile to the southwest and 2/5 of a mile to the northwest.

Water well contamination: No water wells within a ½ mile radius of this proposed location.

Porous/permeable soils: No, silty sandy clay soils.

Class I stream drainage: No.

Groundwater vulnerability area: No.

Mitigation:

☐ Lined reserve pit

☒ Adequate surface casing

☐ Berms/dykes, re-routed drainage

☐ Closed mud system

☐ Off-site disposal of solids/liquids (in approved facility)

Comments: Steel surface casing to be set at 100' and cemented to surface to protect ground water. (Rule 36.22.1001).

5. SOILS/VEGETATION/LAND USE

Vegetation: Cultivated field.

Stream crossings: None anticipated.

High erosion potential: No, a small cut of 1.8' and small fill of 0.9' fill required.

Loss of soil productivity: None, location to be restored after drilling well, if well is nonproductive.

Unusually large wellsite (Describe dimensions): No, a location size of 350' X 250' will be used.

Damage to improvements: Slight, surface use is a cultivated field.

Conflict with existing land use/values: Slight

Mitigation

- ☐ Avoid improvements (topographic tolerance)
- ☐ Exception location requested
- ☒ Stockpile topsoil
- ☐ Stream Crossing Permit (other agency review)
- ☒ Reclaim unused part of wellsite if productive
- ☐ Special construction methods to enhance reclamation

Access Road: A new access of 0.75 miles will be built off existing Gumbo Joe Road.

Drilling fluids/solids: drilling fluids and solids will be buried in an unlined pit onsite.

6. HEALTH HAZARDS/NOISE

Proximity to public facilities/residences: No residences within ½ mile radius.

Possibility of H2S: Yes, possible H2S gas from the Mississippian formations and Nisku.

In/near Class I air quality area:

Size of rig/length of drilling time: 2-5 days drilling time.

Mitigation:

- ☒ Proper BOP equipment
- ☐ Topographic sound barriers
- ☐ H2S contingency and/or evacuation plan
- ☐ Special equipment/procedures requirements
- ☐ Other:

7. WILDLIFE/RECREATION

Sage Grouse: No.

Proximity to sensitive wildlife areas (DFWP identified): None.

Proximity to recreation sites: None.

Creation of new access to wildlife habitat: None.

Conflict with game range/refuge management: None.

Threatened or endangered Species: Species identified as threatened or endangered in Toole County are the Red Knot, Grizzly Bear, Yellow-billed Cuckoo, Pallid Sturgeon, Meltwater Lednian Stonefly, Western Glacier Stonefly, and the Whitebark Pine. Candidate species are the Canada Lynx, Piping Plover, Monarch, and Bull Trout. MTFWP Natural Heritage Tracker website lists one (1) species of concern, the Grizzly Bear.

Mitigation:

- ☐ Avoidance (topographic tolerance/exception)
- ☐ Other agency review (DFWP, federal agencies, DNRC Trust Lands, Sage Grouse Habitat Conservation Program)
- ☐ Screening/fencing of pits, drillsite
- ☐ Other:

Comments: Private cultivated lands lands. There may be species of concern that maybe impacted by this wellsite. We ask the operator to consult with the surface owner as to what he would like done, if a species of concern is discovered at this location. The Board of Oil & Gas has no jurisdiction over private surface lands. No concerns.

IV. IMPACTS ON THE HUMAN POPULATION

8. HISTORICAL/CULTURAL/PALEONTOLOGICAL

Proximity to known sites: None.

Mitigation

☐ avoidance (topographic tolerance, location exception)

☐ other agency review (SHPO, DNRC Trust Lands, federal agencies)

Other:

9. SOCIAL/ECONOMIC

Substantial effect on tax base

☐ Create demand for new governmental services

☐ Population increase or relocation

Comments: No concerns.

IV. SUMMARY

No long term impacts expected. Some short term impacts will occur, but can be mitigated.

I conclude that the approval of the subject Notice of Intent to Drill (does/**does not**) constitute a major action of state government significantly affecting the quality of the human environment, and (does/**does not**) require the preparation of an environmental impact statement.

**EA Checklist
Prepared By:**

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Date: 07/20/23

Title: Chief Field Inspector